EPIDEMIOLOGY PROGRAM COMPETENCIES, 2021-2022

EPIDEMIOLOGY MPH

MPH-EPI 1: Compare and contrast key sources of public health data and understand the ethical and legal principles pertaining to its use.

MPH-EPI 2: Explore strategies and solve barriers pertaining to the design, collection, analysis, and interpretation of epidemiologic data.

MPH-EPI 3: Evaluate the strengths and limitations of epidemiologic methods in scientific literature.

MPH-EPI 4: Develop research hypotheses and formulate analytic approaches to answer epidemiologic questions.

MPH-EPI 5: Synthesize complex epidemiologic information, including causal relationships and risk and prevention strategies, for diverse audiences and settings.

EPIDEMIOLOGY MSPH

MSPH - EPI 1: Identify existing databases that can answer epidemiologic research questions.

MSPH - EPI 2: Identify and describe the ethical considerations of applied epidemiological research in observational studies and in experimental studies.

MSPH-EPI 3: Describe and contrast epidemiological study designs and evaluate their methodological strengths and weaknesses.

MSPH - EPI 4: Identify and integrate core epidemiologic principles to other related disciplines.

MSPH-EPI 5: Manage epidemiologic data, including developing appropriate data documentation for management procedures and newly created variables.

MSPH - EPI 6: Conduct statistical analyses for applied epidemiologic studies, integrating considerations of bias, confounding, effect modification, and statistical significance in light of evidence of biologic plausibility of cause-and-effect.

MSPH-EPI 7: Develop, conduct, and implement an applied epidemiology research project**.**

MSPH-EPI 8: Disseminate scholarly work to the scientific community in the form of oral presentations and/or advanced written documents generated from the applied research project.

EPIDEMIOLOGY PHD

PhD - EPI 1: Critique epidemiologic studies and reports, with regard to design choice, precision, bias, confounding, and ethical issues.

PhD - EPI 2: Identify and describe the ethical considerations of epidemiological research, and conduct research using these principles.

PhD - EPI 3: Formulate novel and innovative study questions and hypotheses and test them using epidemiological methods.

PhD - EPI 4: Evaluate and implement appropriate epidemiologic and statistical methodologies (including advanced techniques) to address epidemiologic hypotheses.

PhD - EPI 5: Develop a research proposal with detailed background, study design, data collection, and analysis plan for carrying out an epidemiologic study.

PhD - EPI 6: Teach epidemiologic concepts to master's and/or undergraduate students.

PhD - EPI 7: Lead and conduct an epidemiologic research project from design through analysis, interpretation, and dissemination of results.